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| 09/841,486      | 04/25/2001  | Yasuo Iwasa          | Q63961              | 4521             |

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1771

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PAPER

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**Commissioner for Patents**

According to the 06/28/2007 notification from Appeal Center, the Examiner's Answer mailed on 05/21/2007 is defective because the heading #4, Status of Amendments After Final is missing from the answer. A substitute Examiner's Answer with the added heading #4 is thus provided to Applicants as an attachment. No new ground of rejection has been presented in the substitute Examiner's Answer.

Hai Vo

**HAIVO  
PRIMARY EXAMINER**



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GROUP 1700

**BEFORE THE BOARD OF PATENT APPEALS  
AND INTERFERENCES**

Application Number: 09/841,486  
Filing Date: April 25, 2001  
Appellant(s): IWASA ET AL.

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Jennifer M. Hayes  
For Appellant

**EXAMINER'S ANSWER**

This is in response to the appeal brief filed 02/12/2007 appealing from the Office action mailed 12/01/2005.

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**(1) Real Party in Interest**

A statement identifying by name the real party in interest is contained in the brief.

**(2) Related Appeals and Interferences**

The statement of Related Appeals and Interferences contained in the brief is correct.

**(3) Status of Claims**

The statement of the status of claims contained in the brief is correct.

**(4) Status of Amendments After Final**

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

**(5) Summary of Claimed Subject Matter**

The summary of claimed subject matter contained in the brief is correct.

**(6) Grounds of Rejection to be Reviewed on Appeal**

The appellant's statement of the grounds of rejection to be reviewed on appeal is substantially correct. The changes are as follows:

Claim 11 is rejected under 35 U.S.C. § 103(a) as allegedly being unpatentable over WO 99/46117 (Arai) as applied to claim 1 above, and further in view of JP 07-195827 to Fujita (JP '827).

**(7) Claims Appendix**

A substantially correct copy of appealed claims appears on page 15 of the Appendix to the appellant's brief. The minor errors are as follows: claims 20 and 21 should be removed from the brief because they are not involved in the appeal.

**(8) Evidence Relied Upon**

6,632,487

ARAI et al

10-2003

WO 99/46117, Arai et al, September 16, 1999.

English Abstract of JP 07-195827, Takeshi Fujita, "Recording Sheet and Production Thereof", August 01, 1995.

**(9) Grounds of Rejection**

The following ground(s) of rejection are applicable to the appealed claims:

*Claims 1-6, 8-10, and 13-19 are rejected under 35 U.S.C. 102(b) as anticipated by or, in the alternative, under 35 U.S.C. 103(a) as obvious over WO 99/46117. US 6,632,487 to Arai et al is relied on as an equivalent form of WO 99/46117.*

Arai teaches a sheet useful as an image-receiving sheet for an ink-jet recording comprising a substrate and a porous resin film provided on the substrate (abstract). The porous resin film comprises 95 parts by weight of a mixture of hydrophilic and hydrophobic resins and 5 parts of an inorganic fine powder (example 10). The porous film contains 5 to 50% by weight of the hydrophilic resin based on total amount of the hydrophilic resin and hydrophobic resin (column 7, lines 25-30). Likewise, the porous film contains 5 to 50% by weight of the hydrophilic resin and 95 to 50% by weight of the hydrophobic resin. The ratio of the amount of the hydrophilic resin to the amount of the hydrophobic resin is 5:95 to 1 within the claimed range. The hydrophilic resin is polyethylene oxide (example 10). The porous resin film is prepared by kneading (column 9, lines 40-45). The inorganic fine powder has an average particle size of 1 to 5 microns (column 8, lines 32-35). The hydrophilic resin is polyolefin (column 5, lines

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8-10). Arai does not disclose the hydrophilic thermoplastic resin capable of absorbing 5 g/g or more of water in 30 minutes. However, it appears that Arai uses the same polyolefin as the hydrophilic resin as Applicants. Therefore, it is the examiner's position that the absorbing capability would be inherently present. Like material has like property. This is in line with *In re Spada*, 15 USPQ 2d 1655 (1990) which holds that products of identical chemical composition can not have mutually exclusive properties. The powdery coating composition is mixed with inorganic particles. The powdery mixture is melted by heating to form a porous resin layer on the substrate (column 9, lines 50-63). The particles of powdery coating are fused to each other to form a porous resin layer having a thickness of 20 microns (column 23, lines 25-30). Likewise, the porous resin layer is able to stand on the substrate by itself. The porous resin layer has a thickness that is sufficient to retain the self-supporting properties. Arai does not specifically disclose an average contact angle, porosity, and pore density of the porous resin film. However, it appears that the porous resin film meets all the structural limitations and chemistry as required by the claims. The porous resin film comprises 95 parts by weight of a mixture of hydrophilic and hydrophobic resins and 5 parts of an inorganic fine powder (example 10). The ratio of the amount of the hydrophilic resin to the amount of the hydrophobic resin is 5:95 to 1 within the claimed range. The porous resin film is prepared by kneading (column 9, lines 40-45). The inorganic fine powder has an average particle size of 1 to 5 microns (column 8, lines 32-35). The hydrophilic resin is polyolefin (column 5, lines 8-10). The hydrophilic resin is polyethylene oxide (example 10). It seems from the claim, if one meets the structure

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recited, the properties must be met or Applicant's claim is incomplete. Hence, it is the examiner's position that the average contact angle, porosity, and pore density would be inherently present. Arai does not specifically disclose that the porous resin is stretched and the inorganic fine powder being subjected in an intermeshing twin screw extruder at a screw shear rate of 300 sec<sup>-1</sup> or higher. However, they are product-by-process limitations not as yet shown to produce a patentably distinct article. It is the examiner's position that the porous resin film of Arai is identical to or only slightly different than the claimed porous resin film prepared by the method of the claim, because both articles are formed from the same materials, having structural similarity. The porous resin film comprises 95 parts by weight of a mixture of hydrophilic and hydrophobic resins and 5 parts of an inorganic fine powder (example 10). The ratio of the amount of the hydrophilic resin to the amount of the hydrophobic resin is 5:95 to 1 within the claimed range. The porous resin film is prepared by kneading (column 9, lines 40-45). The inorganic fine powder has an average particle size of 1 to 5 microns (column 8, lines 32-35). Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. *In re Thorpe*, 227 USPQ 964, 966 (Fed. Cir. 1985). The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. *In re Marosi*, 218 USPQ 289,291 (Fed. Cir. 1983). It is noted that if the

applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Arai.

*Claim 11 is rejected under 35 U.S.C. 103(a) as being unpatentable over WO 99/46117 as applied to claim 1 above, and further in view of JP 07-195827.*

Arai fails to teach the alkylene oxide polymer is a reaction product of an alkylene oxide compound and a dicarboxylic acid compound. Fujita, however, teaches a recording sheet used in printing made from an alkylene oxide polymer which is a reaction product of an alkylene oxide compound and a dicarboxylic acid compound (abstract). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to employ an alkylene oxide polymer as a reaction product of an alkylene oxide compound and a dicarboxylic acid compound because of its practical and economical method of preparing the alkylene oxide polymer of the recording sheet.

#### **(10) Response to Argument**

##### ***Examiner's comments regarding Appellants' issue A***

Appellants argue that Arai does not teach or suggest a self-supporting stretched porous resin film. The examiner respectfully disagrees. The examiner directs Appellants' attention to column 9, lines 50-63. The powdery coating composition is mixed with inorganic particles. The powdery mixture is melted by heating to form a porous resin layer on the substrate. The particles of powdery coating are fused to



each other to form a porous resin layer having a thickness of 20 microns (column 23, lines 25-30). The porous resin layer is able to stand up of its own on the substrate by this process.

Appellants argue that the porous resin layer cannot be an independent self-supporting ink-receiving layer because the porous resin layer is formed on a paper as shown in example 10. The examiner respectfully disagrees. It is not technically erroneous to conclude that the porous resin layer is supported because it is laid down on the paper substrate because self-supporting is generally dependent upon a thickness and/or a composition. It appears that the porous resin layer has a thickness falling in the same range as the self-supporting film of the present invention. The porous resin layer is made of the same composition as the self-supporting film as instantly claimed. Therefore, it is not seen that the porous resin film could not have been able to stand up of its own on the paper substrate as the self-supporting film of the claimed invention. The porous resin has a thickness sufficient to retain its self-supporting properties.

Appellants argue that it is the examiner's position that a "stretched" film is inherent in the powdery composition. The arguments appear to be flawed and incomplete. The examiner never contends that the "stretched" film is inherent based on the powdery composition of Arai. As previously discussed, the term "stretch" is considered as a product-by-process limitation not as yet shown to produce a patentably distinct article. Even though product-by-process claims are limited by and defined by the process, determination of patentability is based on the product itself. The

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patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious from a product of the prior art, the claim is unpatentable even though the prior product was made by a different process. The burden has been shifted to the applicant to show unobvious differences between the claimed product and the prior art product. It is noted that if the applicant intends to rely on Examples in the specification or in a submitted Declaration to show non-obviousness, the applicant should clearly state how the Examples of the present invention are commensurate in scope with the claims and how the Comparative Examples are commensurate in scope with Arai.

***Examiner's comments regarding Appellants' issue B***

Appellant's reiterated positions taken with respect to the rejections over Arai in view of JP'827. The examiner has provided a detailed analysis as to why Arai does teach a self-supporting porous film. The examiner incorporates those arguments by reference. Thus, the examiner respectfully submits that all pending claims are not patentable in view of the cited references.

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**(11) Related Proceeding(s) Appendix**

Copies of the court or Board decision(s) identified in the Related Appeals and Interferences section of this examiner's answer are provided herein.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,

HV

**HAIVO  
PRIMARY EXAMINER**

*Hai V*

Conferees:

Carol Chaney, SPE AU 1773



Jennifer Michener, TC Appeals Specialist

